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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,450	03/04/2002	Thomas A. Chodacki	57,097 (72011)	3289

21874 7590 08/18/2003  
EDWARDS & ANGELL, LLP  
P.O. BOX 9169  
BOSTON, MA 02209

EXAMINER

JEFFERY, JOHN A

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 08/18/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,450

Applicant(s)

CHODACKI ET AL.

Examiner

John A. Jeffery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 (as renumbered) is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.                      6) ☐ Other: .

## **DETAILED ACTION**

### ***Renumbering of Claims***

Claim 26 appears twice. Applicant is reminded that, pursuant to 37 CFR 1.126, the original numbering of the claims must be preserved throughout the prosecution. When claims are canceled the remaining claims must not be renumbered. When claims are added, they must be numbered by the applicant consecutively beginning with the number next following the highest numbered claim previously presented (whether entered or not).

Accordingly, claims 26 (second occurrence) and 27 have been renumbered as 27 and 28 respectively.

### ***Duplicate Claim***

Applicant is advised that should claim 2 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else so close in content that they cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Since the dependency of claim 12 from claim 1 appears to be a typographical error, the examiner presumes for examination purposes that claim 12 was intended to depend from claim 11.

***Claim Objections***

Claims 19-28 are objected to because of the following informalities:

Claim 19: In line 24, "triac" is misspelled.

Claim 20: In line 2, "igniter of" must be changed to "igniter connected to" for clarity. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 20, 25, 27, and 28 are rejected under 35 USC 102(b) as being anticipated by Geary (US4935606). Geary (US4935606) discloses an igniter control system with switches 36, 37 connected to igniter 28, the switches operated via control device 29. The first voltage applied is a "full-on" 120V line voltage for 34 seconds. Then, a second higher voltage is applied to the igniter. However, the second voltage is appears to the igniter as its rated voltage by duty cycling the second voltage, thus regulating the second voltage. Col. 5, line 58 - col. 6, line 22. See also the language of claim 1 (col. 8, lines 12-42). Regarding claim 27, note the half-wave rectifier that duty cycles the second voltage in col. 6, lines 14-16.

***Joint Inventors--Common Ownership Presumed***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5-19, 21-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geary (US4935606) in view of Donnelly et al (US6521869). The claims differ from the previously cited prior art in calling for a voltage-measuring device coupled to the control device to determine the full-on time period based on the measured voltage. Providing an igniter control system that measures voltage to

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determine the corresponding igniter on-time is conventional and well known in the art as evidenced by Donnelly et al (US6521869) noting col. 3, line 45 - col. 4, line 4. In Donnelly et al (US6521869), a microprocessor M1 measures line voltage (col. 3, lines 50-52) and selects a switching sequence depending on the voltage value from a look-up table. Specifically, the igniter on-time increases as the voltage level decreases. Col. 4, lines 61-69. In view of Donnelly et al (US6521869), it would have been obvious to one of ordinary skill in the art to provide a microprocessor that selects an appropriate on-time responsive to measured voltage in Geary (US4935606) so that the igniter is adequately warmed up and is energized according to the actual voltage level.

The claims also differ from the previously cited prior art in calling for a triac. Although Geary (US4935606) discloses the switching element to be an SCR, triacs are well known igniter switching devices for AC voltages as evidenced by Donnelly et al (US6521869), noting triac Q1. In view of Donnelly et al (US6521869), it would have been obvious to one of ordinary skill in the art to provide a triac in lieu of an SCR in the previously described apparatus so that AC voltages could be switched automatically.

### ***Other Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art should be both separately considered and considered in conjunction with the previously cited prior art when responding to this action. US 612, US 300, US 612, US 979, JP 850 disclose igniter control systems relevant to the instant invention.

***Conclusion***

Any inquiry concerning this or earlier communications from the examiner should be directed to John A. Jeffery at telephone number (703) 306-4601 or fax (703) 305-3463. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM EST. The examiner can also be reached on alternate Fridays.

The fax phone numbers for the organization where this application or proceeding is assigned are:

Before Final	(703) 872-9302
After Final	(703) 872-9303
Customer Service	(703) 872-9301

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0861.

**JOHN A. JEFFERY  
PRIMARY EXAMINER**

**8/12/03**